

CRF Errors Corrected by the STIC Systems Branch

Serial Number: 09700130

CRF Processing Date: 1/29/2002
 Edited by: me
 Verified by: me (STIC staff)

ENTERED

- ☐ Changed a file from non-ASCII to ASCII
- ☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.
- ☐ Edited a format error in the Current Application Data section, specifically:
-
- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____.
- ☐ Added the mandatory heading and subheadings for "Current Application Data".
- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically:
-
- ☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were:
-
- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:
-
- ☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- ☐ Inserted colons after headings/subheadings. Headings edited included:
-
- ☐ Deleted extra, invalid, headings used by an applicant, specifically:
-
- ☒ Deleted: ☐ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file;
☐ page numbers throughout text; ☐ other invalid text, such as _____
- ☐ Inserted mandatory headings, specifically: _____
- ☐ Corrected an obvious error in the response, specifically:
-
- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.
- ☐ Corrected an error in the Number of Sequences field, specifically:
-
- ☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- ☐ Deleted **ending** stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____
- ☐ Other: _____
-

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95



PCT09

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/700,130

DATE: 01/27/2002

TIME: 19:45:10

Input Set : N:\jumbos\700130.txt

Output Set: N:\CRF3\01272002\I700130.raw

P.5

```

4 <110> APPLICANT: Gerdes, Kenn
5 Mikkelsen, Marie (FKA Gotfredsen)
6 Gronlund, Hugo
7 Pedersen, Kim
8 Kristoffersen, Peter
10 <120> TITLE OF INVENTION: CYTOTOXIN-BASED BIOLOGICAL CONTAINMENT
13 <130> FILE REFERENCE: PLOUG1.001APC
15 <140> CURRENT APPLICATION NUMBER: US 09/700,130
16 <141> CURRENT FILING DATE: 2000-11-07
18 <150> PRIOR APPLICATION NUMBER: PCT/DK99/00258
19 <151> PRIOR FILING DATE: 1999-05-07
21 <150> PRIOR APPLICATION NUMBER: DK 0627/98
22 <151> PRIOR FILING DATE: 1998-05-07
24 <150> PRIOR APPLICATION NUMBER: US 60/085,067
25 <151> PRIOR FILING DATE: 1998-05-12
27 <160> NUMBER OF SEQ ID NOS: 59
29 <170> SOFTWARE: FastSEQ for Windows Version 4.0
31 <210> SEQ ID NO: 1
32 <211> LENGTH: 51
33 <212> TYPE: DNA
34 <213> ORGANISM: Artificial Sequence
36 <220> FEATURE:
37 <223> OTHER INFORMATION: primer relE1B was used for the amplification of
38 releK-12 by PCR on pBD2430
41 <400> SEQUENCE: 1
42 ccccgatcc ataaggagtt ttataaatgg cgtattttct ggattttgac g 51
44 <210> SEQ ID NO: 2
45 <211> LENGTH: 38
46 <212> TYPE: DNA
47 <213> ORGANISM: Artificial Sequence
49 <220> FEATURE:
50 <223> OTHER INFORMATION: primer relE1B was used for the amplification of
51 releK-12 by PCR on pBD2430
54 <400> SEQUENCE: 2
55 ccccccctga ggtcgactca gagaatgcgt ttgaccgc 38
57 <210> SEQ ID NO: 3
58 <211> LENGTH: 28
59 <212> TYPE: DNA
60 <213> ORGANISM: Artificial Sequence
62 <220> FEATURE:
63 <223> OTHER INFORMATION: primer RelB-p307/1 was used for the generation of
64 a PCR-fragment from pNZ945
68 <400> SEQUENCE: 3

```

RAW SEQUENCE LISTING

DATE: 01/27/2002

PATENT APPLICATION: US/09/700,130

TIME: 19:45:10

Input Set : N:\jumbos\700130.txt

Output Set: N:\CRF3\01272002\I700130.raw

```

69 cccccggatc coagttctga aaggtggc 28
71 <210> SEQ ID NO: 4
72 <211> LENGTH: 29
73 <212> TYPE: DNA
74 <213> ORGANISM: Artificial Sequence
76 <220> FEATURE:
77 <223> OTHER INFORMATION: primer relB-p307/2 was used for the generation of
78     a PCR-fragment from pNZ945
82 <400> SEQUENCE: 4
83 cccccaatt ctcataagta ttatccag 29
85 <210> SEQ ID NO: 5
86 <211> LENGTH: 27
87 <212> TYPE: DNA
88 <213> ORGANISM: Artificial Sequence
90 <220> FEATURE:
91 <223> OTHER INFORMATION: primer relE-p307/3 was used to PCR-amplify the
92     gene relEP307 from pNZ945
96 <400> SEQUENCE: 5
97 ccccgatcc agatctggat aaatacc 27
99 <210> SEQ ID NO: 6
100 <211> LENGTH: 32
101 <212> TYPE: DNA
102 <213> ORGANISM: Artificial Sequence
104 <220> FEATURE:
105 <223> OTHER INFORMATION: primer relE-p307/2 was used to PCR-amplify the
106     gene relEP307 from pNZ945
108 <400> SEQUENCE: 6
109 cccccaatt cgtaacttc tgtgtttatt gc 32
111 <210> SEQ ID NO: 7
112 <211> LENGTH: 28
113 <212> TYPE: DNA
114 <213> ORGANISM: Artificial Sequence
116 <220> FEATURE:
117 <223> OTHER INFORMATION: primer relE-p307/4 was used for the generation of
118     a DNA fragment encoding relEP307 by PCR
122 <400> SEQUENCE: 7
123 ccccgagct cagatctgga taaatacc 28
125 <210> SEQ ID NO: 8
126 <211> LENGTH: 32
127 <212> TYPE: DNA
128 <213> ORGANISM: Artificial Sequence
130 <220> FEATURE:
131 <223> OTHER INFORMATION: Primer relE-P307/5 was used for the generation of
132     a DNA fragment encoding relEP307 by PCR
134 <400> SEQUENCE: 8
135 ccccgcatg cgtaacttc tgtgtttatt gc 32
137 <210> SEQ ID NO: 9
138 <211> LENGTH: 1444
139 <212> TYPE: DNA

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/700,130

DATE: 01/27/2002

TIME: 19:45:10

Input Set : N:\jumbos\700130.txt

Output Set : N:\CRF3\01272002\I700130.raw

```

140 <213> ORGANISM: E. coli K-12
142 <220> FEATURE:
143 <221> NAME/KEY: misc_feature
144 <222> LOCATION: (1)...(1444)
145 <223> OTHER INFORMATION: n = A,T,C or G
147 <400> SEQUENCE: 9
148 cttaatttca ggccecatcg gatcacacat ggagagatgt tatgaataac cccgtctgtc 60
149 ttgatgactg gttgattggc tttaaaagct tgttgacagg ggtaaacggt cggaataaat 120
150 tttctgccgc atgcgggtgt tgcataaaac gtgttacggt cctttatcga caggtcagg 180
151 caccgctcac ccgcgcagca gaaagcaaca ctgacatgct aaagcaaaaa atagatgaat 240
152 aagttgagtt gtgcataatg agcctgaccg tcaaaaagta tatggtgtct gtaccagtaa 300
153 gatgatggcc ggactcttta aaaacgagct gacctgcaca atacaggatg gacttagcaa 360
154 tggctgtccc tggcaaaaag cggacagtga taccggtctc tacgactact tctgacttc 420
W--> 155 cttcgtgact tgccttaagc atgtttagt rbmnrarbst artgcgatac ttgtaatgac 480
156 atttgtaatt acaagaggtg taagacatgg gtargcatta acctgcgtat tgacgatgaa 540
157 cttaaagcgc gttcttaacg cgcgcttgaa aaaatgggtg taactccttc tgaagcgctt 600
158 cgtctcatgc tcgagtatat cgtgcacaat gaacgcttgc cgttcaaaac gacactcctg 660
W--> 159 agtgatgaag atgctgaact tgtggagata gtgaagaac ggcttcgtaa tctcndrbst 720
160 artaaagcca gtacgtgtga cgtcggatga actctgatgg cgtattttct ggattttgac 780
161 gagcgggcac taaaggaatg gcgaagagct gtctgcagca tactgtgaac gtgaaaaag 840
162 aagctggttg aagtaacttg gtaaccccggt attgaagcaa acaagctccg ttgtatgcct 900
163 gattgttaca agattaagct ccgctcttca ggtcatcgcc ttgtatacca ggttatagac 960
164 gagaaagttg tegttttctg gatttctggt gggaaaagag aacgctcgga agtatatagc 1020
W--> 165 gaggndrcgg tcaaacgcac tctctgaacc aaagcatgac atctctgttt cgacccgsta 1080
166 rthkoraagg tgacacttct gctttgcgtt gacaggagaa gcaggctatg aagcagcaaa 1140
167 aggcgatggt aatcgccctg atcgtcatct gtttaacogt catagtgaac gcaactggtaa 1200
W--> 168 cgaggaaaga cctctgcgag gtacgaatcc gaaccgndhk caccagacgg aggtcgctgt 1260
169 cttcacagct tacgaacctg aggagtaaga gaccggcggt gggagaaatc cctcgccacc 1320
170 tctgattgtg caggcatcct caacgcaccc gcaactaacc cgcttcggcg ggttttgggt 1380
171 tttattttca arttcgcgtt tgaagtcttg gacgtgcggt gaatagaatc aaaaataact 1440
172 aagt
174 <210> SEQ ID NO: 10
175 <211> LENGTH: 88
176 <212> TYPE: PRT
177 <213> ORGANISM: Methanococcus jannaschii #2
179 <220> FEATURE:
180 <223> OTHER INFORMATION: protein relE-Mj2
182 <400> SEQUENCE: 10
183 Met Lys Val Leu Phe Ala Lys Thr Phe Val Lys Asp Leu Lys His Val
184 1 5 10 15
185 Pro Gly His Ile Arg Lys Arg Ile Lys Leu Ile Ile Glu Glu Cys Gln
186 20 25 30
187 Asn Ser Asn Ser Leu Asn Asp Leu Lys Leu Asp Ile Lys Lys Ile Lys
188 35 40 45
189 Gly Tyr His Asn Tyr Tyr Arg Ile Arg Val Gly Asn Tyr Arg Ile Gly
190 50 55 60
191 Ile Glu Val Asn Gly Asp Thr Ile Ile Phe Arg Arg Val Leu His Arg
192 65 70 75 80
193 Lys Ser Ile Tyr Asp Tyr Phe Pro

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RAW SEQUENCE LISTING

DATE: 01/27/2002

PATENT APPLICATION: US/09/700,130

TIME: 19:45:10

Input Set : N:\jumbos\700130.txt

Output Set : N:\CRF3\01272002\I700130.raw

```

194             85
197 <210> SEQ ID NO: 11
198 <211> LENGTH: 91
199 <212> TYPE: PRT
200 <213> ORGANISM: Methanococcus jannaschii #3
202 <220> FEATURE:
203 <223> OTHER INFORMATION: protein relE-Mj3
205 <400> SEQUENCE: 11
206 Met Lys Gln Trp Lys Tyr Leu Leu Lys Lys Ser Phe Ile Lys Asp Leu
207 1             5             10             15
208 Lys Glu Leu Pro Lys Asn Ile Gln Glu Lys Ile Lys Lys Leu Val Phe
209             20             25             30
210 Glu Glu Ile Pro Asn Lys Asn Asn Pro Pro Glu Ile Pro Asn Val Lys
211             35             40             45
212 Lys Leu Lys Gly Ala Asp Ser Tyr Tyr Arg Ile Arg Val Gly Asp Tyr
213 50             55             60
214 Arg Ile Gly Phe Lys Tyr Glu Asn Gly Lys Ile Val Phe Tyr Arg Val
215 65             70             75             80
216 Leu His Arg Lys Gln Ile Tyr Lys Arg Phe Pro
217             85             90
220 <210> SEQ ID NO: 12
221 <211> LENGTH: 87
222 <212> TYPE: PRT
223 <213> ORGANISM: Archaeoglobus fulgidus #1
225 <220> FEATURE:
226 <223> OTHER INFORMATION: protein relE-Afl
228 <400> SEQUENCE: 12
229 Met Phe Arg Val Val Val His Arg Lys Ala Thr Gln Glu Leu Lys Arg
230 1             5             10             15
231 Leu Lys Lys Ala His Leu Lys Lys Phe Gly Val Leu Leu Glu Thr Leu
232             20             25             30
233 Lys Thr Asp Pro Ile Pro Trp Lys Arg Phe Asp Val Lys Lys Ile Glu
234             35             40             45
235 Gly Glu Glu Asn Thr Tyr Arg Ile Arg Ile Gly Asp Phe Arg Val Ile
236 50             55             60
237 Tyr Phe Leu Asp Lys Pro Thr Lys Thr Val His Ile Leu Lys Val Glu
238 65             70             75             80
239 Arg Arg Gly Lys Val Tyr Asp
240             85
243 <210> SEQ ID NO: 13
244 <211> LENGTH: 90
245 <212> TYPE: PRT
246 <213> ORGANISM: Methanococcus jannaschii #1
248 <220> FEATURE:
249 <223> OTHER INFORMATION: protein relE-Mjl
251 <400> SEQUENCE: 13
252 Met Lys Phe Asn Val Glu Ile His Lys Arg Val Leu Lys Asp Leu Lys
253 1             5             10             15
254 Asp Leu Pro Pro Ser Asn Leu Lys Lys Phe Lys Glu Leu Ile Glu Thr

```

RAW SEQUENCE LISTING DATE: 01/27/2002
 PATENT APPLICATION: US/09/700,130 TIME: 19:45:10

Input Set : N:\jumbos\700130.txt
 Output Set: N:\CRF3\01272002\I700130.raw

```

255          20          25          30
256 Leu Lys Thr Asn Pro Ile Pro Lys Glu Lys Phe Asp Ile Lys Arg Leu
257          35          40          45
258 Lys Gly Ser Asp Glu Val Tyr Arg Val Arg Ile Gly Lys Phe Arg Val
259          50          55          60
260 Gln Tyr Val Val Leu Trp Asp Asp Arg Ile Ile Ile Ile Arg Lys Ile
261 65          70          75          80
262 Ser Arg Arg Glu Gly Ala Tyr Lys Asn Pro
263          85          90
266 <210> SEQ ID NO: 14
267 <211> LENGTH: 74
268 <212> TYPE: PRT
269 <213> ORGANISM: Bacillus thuringiensis
271 <220> FEATURE:
272 <223> OTHER INFORMATION: protein relE-Bt
274 <400> SEQUENCE: 14
275 Met Lys Phe Ile Ala Lys Gln Glu Lys Gly Ile Gln Lys Arg Ile Ala
276 1          5          10          15
277 Glu Gly Leu Lys Gly Leu Leu Lys Ile Pro Pro Glu Gly Asp Ile Lys
278          20          25          30
279 Ser Met Lys Lys Gly Tyr Thr Glu Leu Tyr Arg Leu Arg Ile Gly Thr Phe
280          35          40          45
281 Arg Ile Leu Phe Glu Ile Asn His Asp Glu Lys Val Ile Tyr Ile Gln
282          50          55          60
283 Ala Ile Gly Asn Arg Gly Asp Ile Tyr Lys
284 65          70
287 <210> SEQ ID NO: 15
288 <211> LENGTH: 95
289 <212> TYPE: PRT
290 <213> ORGANISM: E. coli plasmid P307
292 <220> FEATURE:
293 <223> OTHER INFORMATION: protein relE-P307
295 <400> SEQUENCE: 15
296 Met Arg Tyr Gln Val Lys Phe Arg Glu Asp Ala Leu Lys Glu Trp Gln
297 1          5          10          15
298 Lys Lys Leu Asp Lys Ala Ile Gln Gln Gln Phe Ala Lys Lys Leu Lys Lys
299          20          25          30
300 Cys Cys Asp Asn Pro His Ile Pro Ser Ala Lys Leu Arg Gly Ile Lys
301          35          40          45
302 Asp Cys Tyr Lys Ile Lys Leu Arg Ala Ser Gly Phe Arg Leu Val Tyr
303          50          55          60
304 Gln Val Ile Asp Glu Gln Leu Ile Ile Ala Val Val Ala Val Gly Lys
305 65          70          75          80
306 Arg Glu Arg Ser Asp Val Tyr Asn Leu Ala Ser Glu Arg Met Arg
307          85          90          95
310 <210> SEQ ID NO: 16
311 <211> LENGTH: 82
312 <212> TYPE: PRT
313 <213> ORGANISM: E. coli K-12

```

Use of n and/or Xaa has been detected in the Sequence Listing.
 Review the Sequence Listing to incur a corresponding
 explanation is presented in the <220> to <223> fields of
 each sequence using n or Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/700,130

DATE: 01/27/2002

TIME: 19:45:11

Input Set : N:\jumbos\700130.txt

Output Set: N:\CRF3\01272002\I700130.raw

L:155 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:159 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:165 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:168 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:967 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:44
L:967 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:44
L:967 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44
L:972 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:44
L:972 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:44
L:972 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44
L:976 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:44
L:976 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:44
L:976 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44
L:997 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:45
L:997 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:45
L:997 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45
L:1003 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:45
L:1003 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:45
L:1003 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45
L:1008 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:45
L:1008 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:45
L:1008 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45
L:1031 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:46
L:1031 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:46
L:1031 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46
L:1035 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:46
L:1035 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:46
L:1035 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46